

Appl. No. 10/030,448
Amdt. dated November 18, 2005
Reply to Office action of July 18, 2005

In the Claims:

The existing claims are not amended herein. New claims 10-12 are added.

1. (previously presented) A speaker comprising:
a magnetic circuit having a center magnetic pole and an air gap;
a voice coil wound around a voice coil bobbin disposed in the air gap of the magnetic circuit;
a frame mounted onto the magnetic circuit; and
a cone-shaped diaphragm made from foamed resin with 30µm in average cell size and disposed between the frame and one end of the voice coil bobbin.

2. (previously presented) A speaker of claim 1, wherein the resin making the cone-shaped diaphragm is polyethylene terephthalate.

3. (previously presented) A speaker of claim 1, wherein the resin making the cone-shaped diaphragm is polyethylene naphthalate.

4. (previously presented) A speaker comprising:
a magnetic circuit having a center magnetic pole and an air gap;

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a voice coil wound around a voice coil bobbin disposed in the air gap of the magnetic circuit;

a frame mounted onto the magnetic circuit;

a cone-shaped diaphragm made from foamed resin and disposed between the frame and the one end of the voice coil bobbin;

a support mounted on the center magnetic pole of the magnetic circuit including an induction coil wound around the support; and

at least one light source held in a holder secured to the end of the support for directing light onto the cone-shaped diaphragm by being energized by the voltage induced in the induction coil.

5. (previously presented) A speaker of claim 4, wherein the holder is configured to hold a plurality of light emitting diodes (LEDs) directed to illuminate the cone-shaped diaphragm in radial manner.

6. (previously presented) A speaker of claim 4, wherein the light source is controlled to emit light of different color depending on the audio signal to be applied to the voice coil.

7. (previously presented) A speaker of claim 5, wherein the light source is controlled to emit light of different color depending on the audio signal to be applied to the voice coil.

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8. (previously presented) A diaphragm for speaker made from foamed thermoplastic resin with 30µm or smaller in average cell size.

9. (previously presented) A diaphragm for speaker of claim 8, wherein the foamed thermoplastic resin is either polyethylene terephthalate or polyethylene naphthalate.

Please add new claims as follows:

10. (new) A diaphragm for speaker of claim 9, wherein in the case the foamed thermoplastic resin is polyethylene terephthalate, the extent of foaming of said foamed thermoplastic resin is substantially 3.8 to 5.4, and in the case the foamed thermoplastic resin is polyethylene naphthalate, the extent of foaming of said foamed thermoplastic resin is substantially 4.

11. (new) A speaker of claim 2, wherein the extent of foaming of said foamed resin is substantially 3.8 to 5.4.

12. (new) A speaker of claim 3, wherein the extent of foaming of said foamed resin is substantially 4.